

SEQUENCE LISTING

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FRIEL, Ellen Nicola
BEUNING, Lesley Leah
MACRAE, Elspeth Ann

<120> Plant alpha farnesene synthase and polynucleotides encoding same

<130> 38-05

<140> Not yet known

<141> 2005-04-14

<150> PCT/NZ2003/000229

<151> 2003-10-15

<150> NZ 521984

<151> 2002-10-15

<160> 14

<170> PatentIn version 3.1

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<212> DNA

<213> Malus domestica

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Arg Arg Ser Ala Asn Tyr Lys Pro Asn Ile Trp Lys Asn Asp Phe Leu
35 40 45

Asp Gln Ser Leu Ile Ser Lys Tyr Asp Gly Asp Glu Tyr Arg Lys Leu
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Ser Glu Lys Leu Ile Glu Glu Val Lys Ile Tyr Ile Ser Ala Glu Thr
65 70 75 80

Met Asp Leu Val Ala Lys Leu Glu Leu Ile Asp Ser Val Arg Lys Leu
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Gly Leu Ala Asn Leu Phe Glu Lys Glu Ile Lys Glu Ala Leu Asp Ser
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Ile Ala Ala Ile Glu Ser Asp Asn Leu Gly Thr Arg Asp Asp Leu Tyr
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Gly Thr Ala Leu His Phe Lys Ile Leu Arg Gln His Gly Tyr Lys Val
130 135 140

Ser Gln Asp Ile Phe Gly Arg Phe Met Asp Glu Lys Gly Thr Leu Glu
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Asn His His Phe Ala His Leu Lys Gly Met Leu Glu Leu Phe Glu Ala
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Ser Asn Leu Gly Phe Glu Gly Glu Asp Ile Leu Asp Glu Ala Lys Ala
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Ser Leu Thr Leu Ala Leu Arg Asp Ser Gly His Ile Cys Tyr Pro Asp
195 200 205

Ser Asn Leu Ser Arg Asp Val Val His Ser Leu Glu Leu Pro Ser His
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Arg Arg Val Gln Trp Phe Asp Val Lys Trp Gln Ile Asn Ala Tyr Glu
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Lys Asp Ile Cys Arg Val Asn Ala Thr Leu Leu Glu Leu Ala Lys Leu
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Asn Phe Asn Val Val Gln Ala Gln Leu Gln Lys Asn Leu Arg Glu Ala
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Ser Arg Trp Trp Ala Asn Leu Gly Phe Ala Asp Asn Leu Lys Phe Ala
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Arg Asp Arg Leu Val Glu Cys Phe Ser Cys Ala Val Gly Val Ala Phe
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Glu Pro Glu His Ser Ser Phe Arg Ile Cys Leu Thr Lys Val Ile Asn
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Leu Val Leu Ile Ile Asp Asp Val Tyr Asp Ile Tyr Gly Ser Glu Glu
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Glu Leu Lys His Phe Thr Asn Ala Val Asp Arg Trp Asp Ser Arg Glu
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Thr Glu Gln Leu Pro Glu Cys Met Lys Met Cys Phe Gln Val Leu Tyr
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Asn Thr Thr Cys Glu Ile Ala Arg Glu Ile Glu Glu Glu Asn Gly Trp
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Asn Gln Val Leu Pro Gln Leu Thr Lys Val Trp Ala Asp Phe Cys Lys
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Ala Leu Leu Val Glu Ala Glu Trp Tyr Asn Lys Ser His Ile Pro Thr
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Leu Leu Val His Ser Phe Phe Ser Ile Thr His Glu Gly Thr Lys Glu
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Leu Ile Val Arg Leu Asn Asn Asp Leu Gly Thr Ser Ala Ala Glu Gln
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Glu Arg Gly Asp Ser Pro Ser Ser Ile Val Cys Tyr Met Arg Glu Val
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Asn Ala Ser Glu Glu Thr Ala Arg Lys Asn Ile Lys Gly Met Ile Asp
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Asn Ala Trp Lys Lys Val Asn Gly Lys Cys Phe Thr Thr Asn Gln Val
 515 520 525

Pro Phe Leu Ser Ser Phe Met Asn Asn Ala Thr Asn Met Ala Arg Val
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Ala His Ser Leu Tyr Lys Asp Gly Asp Gly Phe Gly Asp Gln Glu Lys
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<212> DNA

<213> Malus domestica

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acgatctcta tgctactgca ttacacttca agatcctcag gcagcatggc tataaagttt 180
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cgcatttaaa aggaatgctg gaacttttcg aggcctcaaa cctgggtttc gaaggtgaag 300
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 20 25 30

Ser Asp Asn Leu Gly Thr Arg Asp Asp Leu Tyr Ala Thr Ala Leu His
 35 40 45

Phe Lys Ile Leu Arg Gln His Gly Tyr Lys Val Ser Gln Asp Ile Phe
 50 55 60

Gly Arg Phe Met Asp Glu Lys Gly Thr Leu Glu Asn His His Phe Ala
 65 70 75 80

His Leu Lys Gly Met Leu Glu Leu Phe Glu Ala Ser Asn Leu Gly Phe
 85 90 95

Glu Gly Glu Asp Ile Leu Asp Glu Ala Lys Ala Ser Leu Thr Leu Ala
 100 105 110

Leu Arg Asp Ser Gly His Ile Cys Tyr Pro Asp Ser Asn Leu Ser Arg
 115 120 125

Asp Val Val His Ser Leu Glu Leu Pro Ser His Arg Arg Val Gln Trp
 130 135 140

Phe Asp Val Lys Trp Gln Ile Asp Ala Tyr Glu Lys Asp Ile Cys Arg
 145 150 155 160

Val Asn Ala Thr Leu Leu Glu Leu Ala Lys Leu Asn Phe Asn Val Val
 165 170 175

Gln Ala Gln Leu Gln Lys Asn Leu Arg Glu Ala Ser Arg Trp Trp Ala
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Asn Leu Gly Ile Ala Asp Asn Leu Lys Phe Ala Arg Asp Arg Leu Val
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Glu Cys Phe Ala Cys Ala Val Gly Val Ala Phe Glu Pro Glu His Ser
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